

INTISARI

Biji kabau (*Archidendron bubalinum*) merupakan kacang-kacangan khas Indonesia dengan kandungan protein dan senyawa anti gizi yang tinggi, sehingga dapat menurunkan nilai cerna proteinnya. Proses pengolahan dapat menurunkan senyawa anti gizi dan meningkatkan nilai cerna protein biji kabau, tetapi akan berdampak pada komponen gizi lainnya. Penelitian ini bertujuan untuk menentukan pengaruh proses pengolahan (kukus, rebus, goreng) terhadap perubahan senyawa gizi (air, abu, protein, lemak, karbohidrat, profil asam amino), anti gizi (asam fitat, tannin, tripsin inhibitor) dan nilai cerna protein biji kabau secara *in vitro*.

Penelitian dilakukan dalam 2 tahap. Tahap pertama bertujuan untuk memperoleh waktu optimum dari setiap proses pengolahan, yang menghasilkan biji kabau paling disukai secara sensoris oleh panelis. Pengukusan dilakukan selama 5, 10 dan 15 menit, perebusan selama 1, 6, dan 11 menit, dan penggorengan dilakukan selama 1, 3, dan 5 menit. Biji kabau dengan waktu optimum dari setiap proses pengolahan dikeringkan dan dibubukkan hingga lolos ayakan 40 mesh. Bubuk biji kabau selanjutnya dianalisis lebih lanjut senyawa gizi, anti gizi, dan nilai cerna protein *in vitro*.

Hasil penelitian menunjukkan bahwa panelis menyukai biji kabau kukus 10 menit, rebus 6 menit, dan goreng 3 menit berdasarkan parameter *overall liking*. Pengukusan dan perebusan signifikan menurunkan kadar karbohidrat biji kabau. Penggorengan signifikan meningkatkan kadar lemak biji kabau dan menurunkan parameter gizi lainnya. Secara umum, ketiga proses pengolahan signifikan menurunkan profil asam amino, asam fitat, tannin dan tripsin inhibitor. Pengukusan dan perebusan juga signifikan meningkatkan nilai cerna protein *in vitro* biji kabau, sedangkan penggorengan menunjukkan hasil sebaliknya.

Kata kunci:

Biji kabau, proses pengolahan, karakteristik organoleptik, komponen gizi, senyawa anti gizi, nilai cerna protein *in vitro*

ABSTRACT

Kabau Seed (*Archidendron bubalinum*) is an Indonesian indigenous legume with high value of protein and rich of some antinutrient compounds which cause of decreasing protein digestibility. Some of processing can decrease their antinutrient compounds and increase digestibility of protein, but they influence other nutrient compounds. The aim of this research is to determine the effect of processing methods (steam blanching, water blanching, and frying) on nutrient compounds (moisture, ash, protein, fat, carbohydrate), antinutrient compounds (fitic acid, tannin, trypsin inhibitor) and *in vitro* protein digestibility of Kabau Seed.

The study was conducted in 2 stages. The first stage aims to obtain the optimum time of any processing, which produces the most favored sensory by sensory panelists. Steaming for 5, 10 and 15 minutes, boiling for 1, 6, and 11 minutes, and frying done for 1, 3, and 5 minutes. Kabau Seeds with the optimum time of each processing are dried and powdered to pass 40 mesh sieve. The powder of kabau seed then further analyzed the nutritional and antinutritional compounds, and *in vitro* protein digestibility.

The results showed that panelists liked steamed kabau for 10 minutes, boiled for 6 minutes, and fried for 3 minutes based on the parameters of overall liking. Steaming and boiling significant decrease carbohydrate levels. Frying significantly increases the fat content of kabau seed and lowers other nutritional parameters. In general, all the processing significant decrease amino acid profile, phytic acid, tannin and trypsin inhibitors. Steaming and boiling also significantly increased the *in vitro* protein digestibility, while frying showed reverse results

Keywords:

Kabau seeds, processing, organoleptic characteristics, nutritional components, antinutritional compounds, *in vitro* protein digestibility.